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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,996	12/09/2002	Gregory S. Patterson	U01-0065(14)	6672

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EXAMINER	
MILORD, MARCEAU	

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,996	PATTERSON, GREGORY S.	
	Examiner	Art Unit	
	Marceau Milord	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 December 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori (US Patent No 6553119 B1) in view of Hansson (US Patent No 6819946 B2)

Regarding claims 1-2, Mori discloses a mobile terminal (figs. 3-4) for providing sound pressure level dissipation of sound from a transducer comprising: a front housing having a front face and a rear face (col. 2, lines 55-67), the front housing having a listening area and at least one first port there through; a back housing mounted to the front housing to form an enclosure in which the transducer is disposed (col. 3, lines 1-50); a plate mounted to the front face or rear face, the plate having at least one first port there through not axially aligned with the at least one first port through the front housing listening area (col. 4, lines 5-35).

However, Mori does not specifically disclose the feature of at least one channel extending generally perpendicularly from the axis of and laterally between the at least one first port-through the front housing and the at least one first port through the plate.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch covers the second port to substantially prevent sound from passing through the second port to the exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first position to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating

mode of the phone (col. 7,lines 1-43; col. 8, lines 2-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Hansson to the communication system of Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

Regarding claims 11-12, Mori discloses a mobile terminal (figs. 3-4) for providing sound pressure level dissipation of sound from a transducer comprising: a front housing having a front face and a listening area (col. 2, lines 55-67), the front housing having at least one first port and at least one second port there through within the listening area; a back housing coupled to the front housing to form an enclosure in which the transducer is disposed (col. 3, lines 1-50; a bezel mounted to the front face, covering the listening area, the bezel having at least one port central to the listening area approximately coaxial with each respective at least one first port, and at least one port distal from the bezel central port (col. 4, lines 5-35).

However, Mori does not specifically disclose the feature of at least one channel between the bezel and the front housing extending generally perpendicularly from the axis of and laterally away from the at least one second port to the at least one distal port through the bezel.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch

covers the second port to substantially prevent sound from passing through the second port to the exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first position to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating mode of the phone (col. 7,lines 1-43; col. 8, lines 2-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Hansson to the communication system of Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

Claims 13-17 are similar in scope to claims 11-12, and therefore are rejected under a similar rationale.

Regarding claim 18, Mori as modified discloses a mobile terminal (figs. 3-4) for providing sound pressure level dissipation of sound from a transducer comprising: a front housing having a front face and a listening area (col. 2, lines 55-67), wherein the back housing comprises a rear external surface of the mobile terminal (col. 3, lines 9-45).

Regarding claim 19, Mori as modified discloses a mobile terminal (figs. 3-4) for providing sound pressure level dissipation of sound from a transducer comprising: a front housing having a front face and a listening area (col. 2, lines 55-67), wherein the back housing comprises a partition within the mobile terminal (col. 3, lines 15-55).

Regarding claims 20-21, Mori discloses a mobile terminal (figs. 3-4) providing sound pressure level dissipation of sound from a transducer comprising a front housing having a listening area (col. 2, lines 55-67), an ear-sealing region within the listening area, a front face, and a rear face; a back housing mounted to the front housing to form an enclosure in which the transducer is disposed (col. 4, lines 5-35).

However, Mori does not specifically disclose the feature of a means for transmitting sound to the ear-sealing region and second means for transmitting sound from within the ear-sealing region to the listening area outside of the ear-sealing region; and at least one channel extending generally perpendicularly from the axis of and laterally between the at least one port through the front housing and the at least one port through the plate.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch covers the second port to substantially prevent sound from passing through the second port to the

exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first position to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating mode of the phone (col. 7,lines 1-43; col. 8, lines 2-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Hansson to the communication system of Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

Claims 22-23 contain similar limitations addressed in claims 2-21, and therefore is rejected under a similar rationale.

Regarding claim 24, Mori as modified discloses a mobile terminal (figs. 3-4) providing sound pressure level dissipation of sound from a transducer comprising a front housing having a listening area (col. 2, lines 55-67), wherein the back housing comprises a' rear external surface of the mobile terminal (col. 3, lines 9-45).

Regarding claim 25, Mori as modified discloses a mobile terminal (figs. 3-4) providing sound pressure level dissipation of sound from a transducer comprising a front housing having a listening area (col. 2, lines 55-67), wherein the back housing comprises a partition within the mobile terminal (col. 3, lines 15-55).

Regarding claims 26-27, Mori discloses a method for providing sound pressure dissipation of sound from a transducer in a mobile terminal (figs. 3-4), the mobile terminal having a front housing including a listening area and an ear-sealing region with the listening area (col. 2, lines 55-67), and a back housing mounted to the front housing to form an enclosure in which the transducer is disposed (col. 3, lines 1-50;col. 4, lines 5-35).

However, Mori does not specifically disclose the steps of step of transmitting sound through a channel from inside the enclosure and within the ear-sealing region to the listening area outside the ear-sealing region; and transmitting sound through a port within the enclosure and within an ear sealing region to one end of the channel, and transmitting sound from the other end of the channel through a port opening to the listening area and outside the ear-sealing region.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch covers the second port to substantially prevent sound from passing through the second port to the

exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first position to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating mode of the phone (col. 7,lines 1-43; col. 8, lines 2-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Hansson to the communication system of Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

Regarding claim 28, Mori discloses a method for providing sound pressure dissipation of sound from a transducer in a mobile terminal (figs. 3-4), the method comprising the steps of: providing a front housing having a front face and a rear face, the front housing having a listening area and at least one first port there through (col. 2, lines 55-67); providing a back housing mounted to the front housing to form an enclosure in which the transducer is disposed (col. 3, lines 1-50); providing a plate mounted to the front face or rear face, the plate having at least one

first port there through not axially aligned with the at least one first port through the front housing listening area (col. 4, lines 5-35).

However, Mori does not specifically disclose the feature of providing at least one channel extending generally perpendicularly from the axis of and laterally between the at least one first port through the front housing and the at least one first port through the plate.

On the other hand, Hansson, from the same field of endeavor, discloses an apparatus that is provided for controlling the source of sound emitted from a mobile terminal used in a wireless communication system. The apparatus comprises a housing defining first and second acoustic ports communicating with the exterior of the mobile terminal. A switch is disposed in the housing for movement between a first position where the switch covers the first port to substantially prevent sound produced by a speaker from passing to the exterior of the mobile terminal while allowing sound to pass from the second port. In the second position, the switch covers the second port to substantially prevent sound from passing through the second port to the exterior of the mobile terminal while allowing sound to pass from the first port. A controller distinguishes among the different operating modes of the mobile terminal and is operable to access a plurality of audio settings representative of the sound level to be emitted which is associated each operating mode. A motive device in communication with the controller moves the switch between the first position to the second position for changing the source of sound from the mobile terminal depending on the operating mode (col. 2, line 26-col. 3, line54). Furthermore, the housing includes a mouthpiece for inputting sound; an earpiece for receiving sound and it also defines several openings or acoustic ports for outputting sound (col. 4, lines 26-65). The audio interface comprises an electronic audio gain circuit for adjusting the audio

characteristics of the speaker. The control program also operates to ensure that the sound level emitted from the acoustic port of the mobile terminal is appropriate for the current operating mode of the phone (col. 7,lines 1-43; col. 8, lines 2-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of Hansson to the communication system of Mori in order to minimize the effect of ambient noise when operating in the receiver mode in a noisy environment.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Zurek et la discloses a portable radio telephone which is adapted to provide hand free operation and adapted to be held against a user's ear to provide private operation.

Hawker et al discloses a telephone handset with enhanced hands free, and an apparatus for providing sound from both the receiver and from the loudspeaker to the ear of the user when the ear of the user is only partly sealed to the handset.

Bartlett et al discloses a telephone handset apparatus having an earpiece monitor and reduced inter-user variability.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marceau Milord whose telephone number is 571-272-7853. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MARCEAU MILORD

MARCEAU MILORD
PRIMARY EXAMINER

Marceau Milord
Primary Examiner
Art Unit 2682

April 17, 2005